



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

SW

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/941,237	08/28/2001	Eric Chapoulaud	ORM-166CI	5289

26875 7590 03/23/2004

WOOD, HERRON & EVANS, LLP  
2700 CAREW TOWER  
441 VINE STREET  
CINCINNATI, OH 45202

EXAMINER

BUMGARNER, MELBA N

ART UNIT	PAPER NUMBER
----------	--------------

3732

13

DATE MAILED: 03/23/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/941,237

Applicant(s)

CHAPOULAUD ET AL.

Examiner

Melba Bumgarner

Art Unit

3732

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
  - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 15 December 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 26-30, 32-37 and 53-62 is/are pending in the application.
- 4a) Of the above claim(s) 26-30, 55, 57, 59, 61 and 62 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 33 and 56 is/are allowed.
- 6) ☒ Claim(s) 32, 34-37, 53, 54, 58 and 60 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

Art Unit: 3732

## **DETAILED ACTION**

### ***Election/Restrictions***

1. Applicants' election with traverse of Group I and species of a method of manufacturing an orthodontic appliance, claims 32-37, in Paper No. 7 was acknowledged in Paper No. 9. The traversal, in Paper No. 11, is on the ground(s) that applicants believe claim 32 is generic and claims 26-30 read on the elected species. This is not found persuasive because claim 32 does not read on *all* of the species of the claimed invention and a separate species, claim 26, cannot be amended to be combined with the elected species, claim 32. The requirement is still deemed proper and is therefore made FINAL.
2. New claims 55, 57, 59, 61, and 62 are further withdrawn as to containing subject matter of a nonelected species.
3. Claims 26-30, 55, 57, 59, 61, and 62 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected species, there being no allowable generic or linking claim. A complete reply to the final rejection must include cancellation of nonelected claims or other appropriate action (37 CFR 1.144) See MPEP § 821.01.
4. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Art Unit: 3732

***Claim Objections***

5. Claim 37 is objected to because of the following informalities: in claim 37, "the pattern" lacks sufficient antecedent basis. Appropriate correction is required.

***Claim Rejections - 35 USC § 112***

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claims 32, 34-37, 53, 54, 58, and 60 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The method steps in claims 32, 34, and 36 are incomplete in that they are not directed to manufacturing an orthodontic appliance. In claim 34, it is unclear what is meant by "to shape the orthodontic appliance". In claims 53 and 60, it is unclear what is meant by "selectively jetting" and "jetting", respectively.

***Claim Rejections - 35 USC § 103***

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 32, 34-36, 53, 54, 58, and 60 are rejected, as understood, under 35 U.S.C. 103(a) as being unpatentable over Fink et al. (5,510,066). Fink et al. disclose a method of manufacturing a solid object comprising producing digital data defining a three dimensional surface of an object 10; depositing material, in accordance with the digital data, layer by layer in a plurality of layers each constituting a two dimensional cross-section of a solid object having a

Art Unit: 3732

edge defined by the data, the layers being stacked in a third dimension to form the solid object 12; however, they do not show the digital data defining an orthodontic appliance. It is held to be an obvious matter of choice to one of ordinary skill in the art at the time the invention was made to modify the method of Fink et al. to have digital data defining an orthodontic appliance instead of the object, since the claimed invention results in forming "the solid object" and not the orthodontic appliance, and Fink et al. teach the method for fabricating articles of manufacture in general, such as a prosthetic device. Fink et al. show the solid object is a pattern and the manufacturing further includes forming a mold with the pattern and casting the component (column 1 line 45). As understood, Fink et al. show the depositing of material using ink-jet printer technology. It would have been an obvious matter of choice to one of ordinary skill in the art as to the type of orthodontic appliance.

***Allowable Subject Matter***

10. Claims 33 and 56 are allowed.

***Response to Amendment***

11. The declarations under 37 CFR 1.132 filed December 15, 2003 are sufficient to overcome the rejection of claims 32-37 based upon Brodtkin et al.

***Response to Arguments***

12. Applicant's arguments filed December 15, 2003 have been fully considered but they are not persuasive. Regarding arguments to rejection under Fink et al., the claims do not show the step(s) of an orthodontic appliance being made. These claims describe a solid object being made, which Fink et al. disclose.

*Conclusion*

13. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.


14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Melba Bumgarner whose telephone number is 703-305-0740. The examiner can normally be reached on Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kevin Shaver can be reached on (703) 308-2582. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0858.



Melba Bumgarner  
Patent Examiner



KEVIN SHAVER  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 3700